### TECHNICAL REVIEW: AIR PERMIT BY RULE

Permit No.:	147140	Company Name:	Building Materials Investment Corporation	APD Reviewer:	John Gott, P.E.	
Project No.:	270215	Unit Name:	GAF Materials	PBR No(s).:	106.261, 106.262, 106.472	

GENERAL INFORMATION										
Regulated Entity No.:	RN100788959	Project Type:	Permit by Rule Application							
Customer Reference No.:	CN605251487	Date Received by TCEQ:	June 7, 2017							
City/County:	Dallas, Dallas County	Date Received by Reviewer:	June 12, 2017							
Physical Location:	2600 Singleton Blvd									

CONTACT INFORMATION											
Responsible Official/ Primary	Mr. Bruce Dahlgren	Phone No.:	(214) 637-8970	Email:	BDAHLGREN@GAF.CO						
Contact Name and Title:	Plant Manager	Fax No.:	(214) 637-5202		M						
Technical Contact/ Consultant	Mr. Kevin Bush	Phone No.:	(214) 637-8933	Email:	KBUSH@GAF.COM						
Name and Title:	Environmental Engineer	Fax No.:	(214) 637-5202								

GENERAL RULES CHECK	YES	NO	COMMENTS
Is confidential information included in the application?	Χ		Confidential version of PBR submittal.
Has the PBR fee been paid?	Х		
Is this registration certified?	Χ		
Is this an APWL site?		Χ	
Are there any upstream or downstream affects associated with this registration?		Х	All emissions are included.
Is planned MSS included in the registration?		Χ	
Are there affected NSR or Title V authorizations for the project?	Х		If yes, what is the number(s): NSR 7711A, O-2771
Is each PBR > 25/250 tpy?		Χ	
Are PBR sitewide emissions > 25/250 tpy?	N/A	N/A	Site has been to public notice.
Are there permit limits on using PBRs at the site?		Χ	
Is PSD or Nonattainment netting required?		Χ	
Do NSPS, NESHAP, or MACT standards apply to this registration?		Х	
Does NOx Cap and Trade apply to this registration?		Х	
Is the facility in compliance with all other applicable rules and regulations?	Х		

### DESCRIBE OVERALL PROCESS AT THE SITE

Building Materials Investment Corporation doing business as GAF Materials Corporation (GAF) owns and operates asphalt roofing production facility located in Dallas, Texas (Dallas Plant). Operations at GAF Dallas Plant are authorized under New Source Review (NSR) Permit No. 7711A, Standard Permit No. 91414 and several non-registerable Permits by Rule (PBRs).

## DESCRIBE PROJECT AND INVOLVED PROCESS

GAF has certified the emissions under PBR106.261, 106.262 and 106.472 to authorize Line 3 sealant application system that includes one new Line 3 sealant run tank, associated self-seal applicator, laminate self-seal applicator, asphalt fume filter and a Heatec heater. The Heatec heater is authorized under PBR 106.183 which does not require registration.

Self-seal asphalt based dots are applied to the asphalt roofing sheets before they are cut into shingles and automatically packaged. Adhesive stripes are applied to the laminated shingles in Line 3 before the shingles are cut and packaged. As part of this project, GAF is planning to install Line 3 sealant application system to apply self-seal asphalt and laminate self-seal asphalt to the asphalt roofing sheets. The proposed Line 3 sealant application system includes one new Line 3 sealant run tank, associated self-seal applicator, laminate self-seal applicator, asphalt fume filter and a Heatec heater. The company is claiming all emissions under PBR 106.261 and 106.262. The company is using the TCEQ memo by Mr. Richard Hyde dated September 1, 2006 to construct the sealant run tank under PBR 106.472 (1) while the emissions are approved under PBR 106.261 and 106.262.

The emissions from the Line 3 sealant run tank, associated self-seal applicator, laminate self-seal applicator will be controlled by Line 3 Mist Elimination System (Emission Point Number [EPN]: CFL2). The Line 3 Mist Elimination System is a filter system that controls the asphalt fumes from the Line 3 sealant run tank, associated self-seal applicator, and laminate self-seal applicator. GAF does not expect any increase in actual emission increases from upstream or downstream processes as a result of the proposed project.

The Heater heater is used to provide heat required by the Line 3 sealant application system, and the heater is authorized under PBR 106.183. The Dallas Plant maintains onsite documentation and as such, emissions associated with this heater are not included in this PRB registration. The natural gas heater has less than 1 tpy for each criteria pollutant emissions. The company submitted the emission rates as confidential.

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### TECHNICAL SUMMARY - DESCRIBE HOW THE PROJECT MEETS THE RULES

#### PBR 106.261/262 Compliance Demonstration

- The emission point(s) associated with the facilities or changes to facilities are located at least 100 ft from the nearest off-site receptor.
- The total new or increase emissions will comply with the applicable hourly and annual emission limits as represented in the table below.
- There are no changes to or addition of any pollution abatement equipment.
- Visible emissions to the atmosphere, from any point or fugitive source, do not exceed 5.0 % opacity in any six-minute period.
- This registration is not for authorization for construction or to change a facility authorized under another section of this chapter or under standard permit.

## §106.472 (March 14, 1997 amended September 4, 2000)

Liquid loading or unloading equipment for railcars, tank trucks, or drums; storage containers, reservoirs, tanks; and change of service of material loaded, unloaded, or stored is permitted by rule, provided that no visible emissions result and the chemicals loaded, unloaded, or stored are limited as cited by the company to:

- (1) the following list: asphalt, resins, soaps lube oils, fuel oils, polymers, detergents, lube oil additives, vegetable oils;
- (2) water or wastewater;
- (3) aqueous salt solutions;
- (4) aqueous caustic solutions, except ammonia solutions;
- (5) inorganic acids except oleum, hydrofluoric, and hydrochloric acids;
- (6) aqueous ammonia solutions if vented through a water scrubber;
- (7) hydrochloric acid if vented through a water scrubber;
- 8) acetic acid if vented through a water scrubber; and
- (9) organic liquids having an initial boiling point of 300 degrees Fahrenheit or greater.

				PBR 106.261(2)				
	Air Contamii	nant		Emiss	ion Limit	Actual Emissions		
				Lb/hr	Тру	lb/hr	tpy	
CO				6.00	10.00	0.00335	0.01	
				PBR 106.262				
Air Contaminant	L	D	К	Emiss	ion Limit	Actual E	missions	
	mg/m³	ft		lb/hr	Тру	lb/hr	tpy	
Asphalt Petroleum "Fume"	5	450	92.5	0.0541	0.2368	0.050273	0.1900729	
H2S	1.1	450	92.5	0.0119	0.0521	0.00166	0.00621	
				PBR 106.261(3)				
				Emiss	ion Limit	Actual E	missions	
	Air Contamii	nant		lb/hr tpy		lb/hr	tpy	
Carbonyl Sulfide				1.00	4.38	4.36E-5	1.63E-4	
				TOTA	L VOC EMISSIONS:	0.05*	0.19*	

<sup>\*</sup>The total speciated emissions both lbs/hr and tpy are equal to the 0.05 lbs/hr and 0.19 tpy of VOC in the ESTIMATED EMISSIONS block below and are acceptable speciated emission estimates.

COMMUNIC	ATION LOG	3							
Date	Time	Name/Company	Subject of Communication						
6-15-2017	1115	To: Mr. Kevin Bush	Voicemail- I need the emissions that you are claiming under an unregistered PBR 183.						
6/15/2017	1617	Fm: Lele Bao <u>lbao@trinityconsultants.com</u> 972-661-8100	Emailplease find attached the emission calculation for the Line 3 Heatec Heater that includes the heater size and hours of operations for the proposed Line 3 Sealant Application System project.						
7/11/2017	1500	To: Lele Bao, 972-661-8100	Discussed the asphalt. Is it blown asphalt or virgin asphalt?						
7/11/2017	1642	Fm: Lele Bao <u>lbao@trinityconsultants.com</u> 972-661-8100	Email-Thanks for the time to discuss the asphalt question this afternoon. The laminate sealant is approximately 90% blown asphalt and 10% polymer modified asphalt. The self-seal sealant is laminate sealant blended with approximately 20% limestone.						

EPN / Emission Source						PM <sub>10</sub> PM <sub>2.5</sub>			H₂S Carbonyl Sulfide					
	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy	lbs/hr	tpy
CFL2 / Line Sealant System- Mist Elimination System	0.05	0.19	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01

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TOTAL EMISSIONS	0.19	0.0	L	< 0.01	<0.01		<0.01		0.01		<0.01
(TPY):											
MAXIMUM OPERATING	Hours/Day		Days/	Week	We	eks/Year		Hot	urs/Yr	8,76	)
SCHEDULE:	-										

SITE REVIEW/DISTANCE LIMIT	Υ	N	Description/Outcome	Date	Reviewed by
Site Review Required?		X		6/15/2017	John C. Gott, P.E.
PBR Distance Limits Met?	Χ		The company claims that 110' exists to the nearest property line and 450' to the nearest off-property structure.	6/15/2017	John C. Gott, P.E.

	TECHNICAL REVIEWER	PEER REVIEWER	FINAL REVIEWER
SIGNATURE:	John C. Gott	Banfar	June 9
PRINTED NAME:	Mr. John Gott, P.E.	Sushil Gautam, Ph.D.	Mr. Samuel Short, Mgr.
DATE:	June 15, 2017	June 19, 2017	July 12, 2017